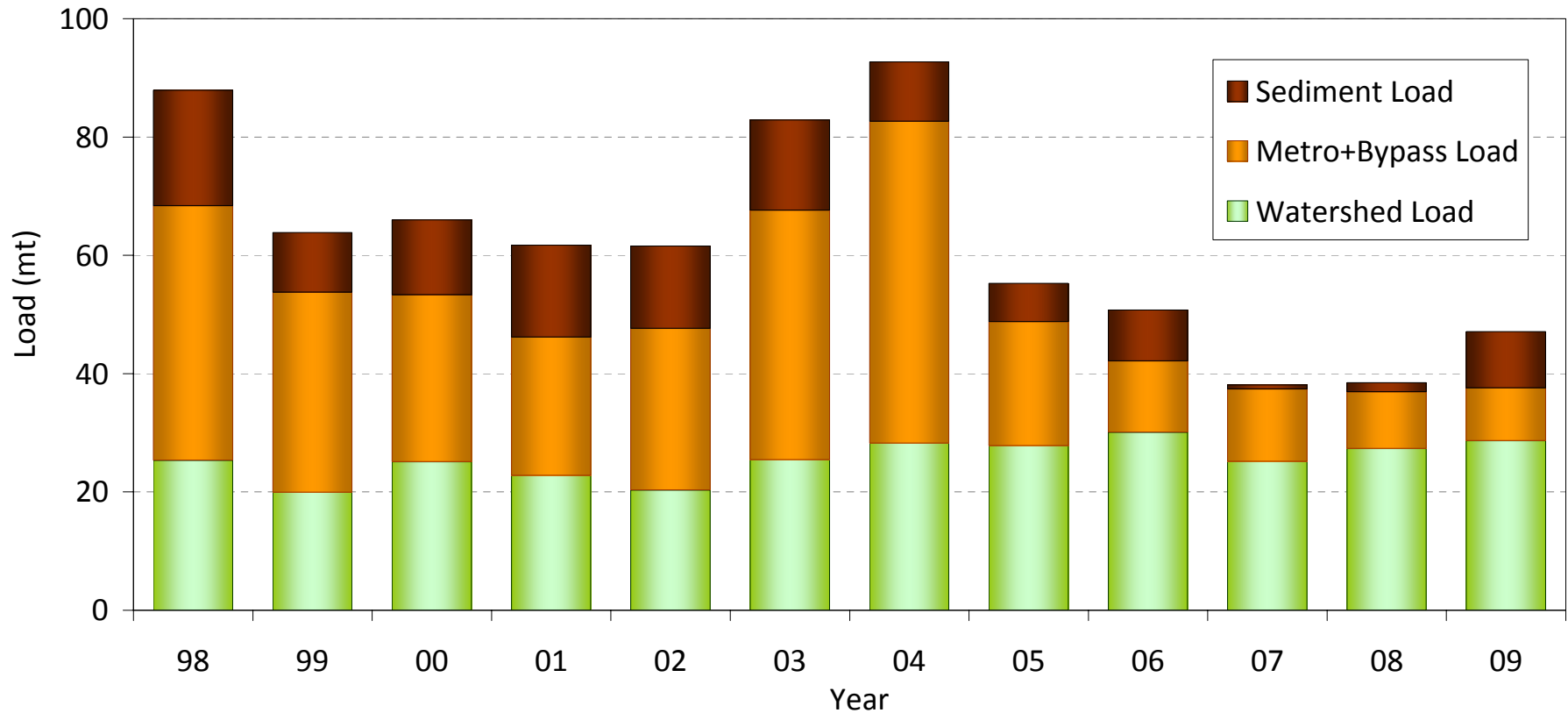


Sources of Phosphorus Loading to Onondaga Lake Over Time



Overall, phosphorus loading to Onondaga Lake has decreased over time, from over 80 metric tons in 1998 to less than 50 metric tons in 2009. Phosphorus loading from Metro (Outfall 001 and Bypass) has decreased most significantly since the Acti-Flo system came on-line in 2005. Phosphorus loading from the sediments (*internal loading*) has generally decreased as well, attributed to the changes in dissolved oxygen and nitrate concentrations in the lake's lower waters (see text for discussion). Loading from the watershed has remained relatively stable, between 20 and 30 metric tons per year.

Note: Sediment loading is estimated as the difference between Spring (approximately June 15) and Fall (approximately Sept 15) total phosphorous concentrations in lower waters (12, 15 and 18 meters). Mass is calculated from concentration using these volumes (m³) by depth: 12m = 19,383,000; 15m = 15,005,000; 18m = 8,283,000.